

YOUNG SCIENTIST 2026

18th International Scientific Conference on Civil and Environmental Engineering.

Topics

- Construction Technology, Organization and Management
- Material Engineering and Recycling
- Construction Economics, Marketing and Management
- Sustainable Architecture and Energy Efficiency
- Sustainable Civil and Environmental Engineering
- Hydrotechnical Engineering
- Structural Engineering and Bridges
- Building Physics and Services
- Innovations in Construction Design and Technology
- Building Information Modeling
- Transport and Geotechnical Engineering
- Statics, Dynamics and Modeling



Program:

Wednesday, October 14, 2026

8:30 - 9:00	<i>On-line registration</i>
9:00 - 9:20	Opening of the conference Dušan Katunský, Dean of the Faculty of Civil Engineering
Section:	Construction Management, Economics and Digitalization
Chairs:	Marcela SPIŠÁKOVÁ, Mária GRAZIANOVÁ
9:20 - 9:35	Samuel Berezňanin, Mária Kozlovská, Zuzana Struková The degree of prefabrication in construction: a bibliometric review
9:35 - 9:50	Alžbeta Fedáková, Zuzana Struková, Mária Kozlovská Unmanned Aerial Systems for Occupational Health and Safety Management in Transport Infrastructure Projects
9:50 - 10:05	Ivana Halászová, Mária Kozlovská Digital Support of Vegetation Systems in the BIM-Based Pre-Construction Phase
10:05 - 10:20	Dariia Voloshchuk, Mária Kozlovská, Zuzana Struková Evolution of Lean Production and Lean Construction in the International Context: Bibliometric Analysis of Research Trends
10:20 - 10:35	Štefan Petkanič, Mária Kozlovská Integration of BIM and 3D scanning throughout the construction life cycle: from design model to digital twin
10:35 - 10:50	Erika Kurimská Pajerská, Jozef Švajlenka Life-Cycle Cost Analysis as a Tool for Sustainable Construction
10:50 - 11:05	Denis Konovalov, Jozef Švajlenka, Dušan Katunský, Nikola Višenková Scan-to-BIM workflow for managing and documenting existing buildings
11:05 - 11:20	Gabriel Galgóci, Marcel Behún BIM-based framework for multi-criteria assessment of building renovation efficiency
Poster Section:	Construction Management, Economics and Digitalization
11:20 - 11:30	
1.	Mária Grazianová, Peter Mésároš HBIM-Based Digital Passport for Structured Management of Historic Building Information
2.	Rostislav Doubek Share of volume of types of work and financial costs according to the stages of completion of modernized school facilities
3.	Lucia Zemanová, Matúš Pohorenec, Marcel Behún A conceptual BIM-enabled whole-life economic efficiency framework for sustainable construction project appraisal
11:30 - 13:00	Lunch break

Section:	<i>Sustainable Materials and Environmental Engineering</i>
Chairs:	Natália JUNÁKOVÁ, Silvia VILČEKOVÁ
13:00 - 13:15	Veronika Kollárová Total shrinkage of RAC: comparison of prediction models and experimental data
13:15 - 13:30	Barbora Medelská Utilization of Recycled Polymer Granules in Asphalt mixtures
13:30 - 13:45	Adam Tarana, Peter Makýš Early stage prediction of construction waste generation using project-based indicators in Slovakia
13:45 - 14:00	Martin Jaš, Adriana Ešťoková, Marcel Behún Comparison of the Carbon Footprint of Cements CEM I, CEM II/A-S, and CEM III/A
14:00 - 14:15	Alexandra Tarbaj, Natália Junáková, Adriana Ešťoková Influence of Curing Conditions on Cement Composites at Early Age
14:15 - 14:30	Michaela Karlová, Michal Kabrhel Assessment of certification systems and methodologies for evaluating the sustainability of buildings
14:30 - 14:45	Matúš Pohorenec, Marcel Behún A conceptual AI-driven point-cloud completion and scan-to-BIM framework for sustainable renovation of existing buildings
Poster Section:	<i>Sustainable Materials and Environmental Engineering</i>
14:45 - 14:55	
1.	Dominik Verčimák, Alena Sičáková Comparison of the Effects of Recycled Concrete and Recycled Aerated Concrete Micro-Fillers on Concrete Properties
2.	Sara Alasu, Azra Korjenic Facade Material Analysis and Urban Greening Approaches in the Adaptation of Existing Residential Buildings with Exposed Aggregate Concrete Facades from the 1960s–1980s in Vienna
15:00	Closing

Thursday, October 15, 2026

Section:	<i>Structural, Hydrotechnical and Infrastructure Engineering</i>
Chairs:	Viktória BAJZECEROVÁ, Kamila KOTRASOVÁ
9:00 - 9:15	Roman Tóth Operational and morphological data assessment for the creation of an operating manual (Case Study: Jablonka Reservoir)

9:15 - 9:30	Adela Rutzká, Lea Čubanová, Ján Rumann Integrated Numerical and Physical Hydraulic Modelling of a Nature-Like Fish Pass Based on UAV Photogrammetric Data
9:30 - 9:45	Alexandra Vidová, Lea Čubanová Numerical Simulation of Hydraulic Conditions in Technical Vertical Slot Fish Pass
9:45 - 10:00	Dmitrii Pavlov Field Measurements for Hydraulic Analysis of Measures for Climate Change Adaptation
10:00 - 10:15	Natália Bilčíková, Jakub Mydla, Michaela Červeňanská Design of a safety spillway for a detention reservoir
10:15 - 10:30	Alexander Jiponov, Vasil Nikolov Replacement of an Existing Multi-Span Bridge with a Single-Span Steel Arch Bridge under Hydraulic Constraints
10:30 - 10:45	Matúš Todorov Anisotropy Effects on the Compressive Properties of 3D-Printed Concrete
10:45 - 11:00	Kristýna Hrabovská The effect of using larger number of spacing size for shear studs in continuous composite steel-concrete beams
Poster Section:	Structural, Hydrotechnical and Infrastructure Engineering
11:00 - 11:20	
1.	Damian Jończyk, Maciej Major Numerical assessment of the influence of plaster layer thickness on temperature distribution in calcium-silicate masonry units exposed to standard fire
2.	Damian Jończyk, Maciej Major, Izabela Major, Anna Jaskoť, Kamila Kotrasová, Slávka Harabinová Numerical analysis of a steel billboard support structure subjected to fire exposure and seismic excitation
3.	Przemysław Palacz, Izabela Major, Maciej Major Finite Element Analysis of a Personal Protective Capsule with a Three-Dimensional Rod Structure: A Comparison of Columbus Egg and Circular Vertical Cross-Section Geometries
4.	Jana Budajová, Kamila Kotrasová, Slávka Harabinová, Eva Kormaniková FEM analysis of concrete foundation block resting on a Pasternak elastic foundation
5.	Slávka Harabinová, Kamila Kotrasová, Eva Panulinová, Jana Krempaská Finite Element Method for Slope Stability Analysis
11:20 - 13:00	Lunch break

Section:	Sustainable Buildings, Architecture and Innovation
Chairs:	Danica KOŠIČANOVÁ, František VRANAY
13:00 -13:15	Zuzana Jakubčáková, Erika Dolníková, Dušan Katunský Light as a therapeutic element: The architectural potential of courtyards in healthcare facilities
13:15 -13:30	Lenka Benková, Daniela Káposztássová, Zuzana Vranayová Green facades in Central European cities: From aesthetic trend to economic reality
13:30 -13:45	Andrea Hrubovčáková, Peter Mesároš, Marcela Spišáková Digital Decision Support for Sustainable Building Renovation
13:45 -14:00	Dominika Husáriková, Martin Lopušniak Transforming building envelopes into active energy subsystems: An overview of research on double skin facades and building-integrated photovoltaics technologies
14:00 - 14:15	Zdeněk Kopečný The Impact of Shading Systems on the Daylighting of Indoor Building Spaces
14:15 -14:30	Jana Krempaská, Viktória Bajzecerová, Roman Vodička Key Trends in the Development and Design of Timber Structures
14:30 -14:45	Štefan Gorás, Zdeněk Kopečný, Ondřej Pírek, Dušan Katunský, Eva Krídlová Burdová The use of spatial BIM models in daylight simulation software
Poster Section:	Sustainable Buildings, Architecture and Innovation
14:45 -14:55	
1.	Teichmann Florian, Korjenic Azra Barriers and Opportunities for Climate-Resilient Building Renovation in Bosnia and Herzegovina: A Critical Review
2.	Przemysław Palacz, Izabela Major, Maciej Major, Kamila Kotrasová, Slávka Harabinová Comparative Numerical Analysis of a Lap Joint and an End-Plate Joint of an Beam in a Steel Test Stand for Full-Scale Bending Tests of Structural Elements
3.	Miroslava Javoríková, Michal Hronský A Hybrid CLT Wall-Framed System for Adaptable Architectural Space
15:00	Closing the conference

Thank You
for your participation!